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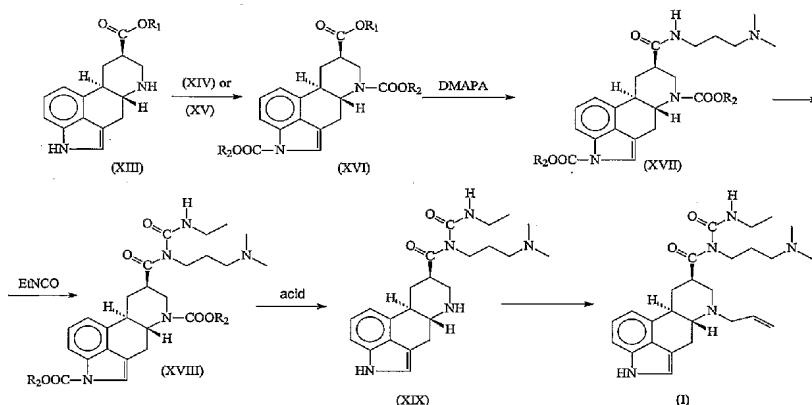
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(54) Title: NOVEL PROCESS FOR PRODUCTION OF CABERGOLINE



(57) Abstract: A process for preparing cabergoline (I) from ergoline-8β-carboxylic acid ester (XIII) comprising the following steps. (a) reacting an ergoline-8β-carboxylic acid ester of formula (XIII), wherein R<sub>1</sub> represents a C<sub>1-4</sub> alkyl group, in the presence of a catalyst (i) with a compound of formula (XIV), X-COOR<sub>2</sub> (XIV) wherein R<sub>2</sub> is an optionally substituted straight or branched C<sub>1-6</sub> alkyl group, X represents a bromine or chlorine atom, or (ii) with a compound of formula (XV), O(COOR<sub>2</sub>)<sub>2</sub> (XV) wherein R<sub>2</sub> is a group as defined above; (b) reacting the obtained carbamate derivative of formula (XVI) with 3-(dimethylamino)-propylamine (DMAPA) in the presence of a catalyst; (c) reacting the obtained ergoline-8β-carboxamide derivative of formula (XVII) with ethyl isocyanate (EtNCO) in the presence of ligand(s) and Ib and IIb metal group salt catalysts; (d) reacting the obtained protected N-acylurea derivative of formula (XVIII) with a strong aqueous inorganic acid (aq./acid); (e) reacting the obtained secondary amine (XIX) with an electrophil allyl alcohol derivative in the presence of a palladium or nickel containing catalyst and optionally in the presence of ligand(s) to form cabergoline (I). The intermediates of (XVI), (XVII), (XVIII) and (XIX) are novel. The polymorphic amorphous form of Cabergoline (I) and the production thereof.



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